

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at line 18 on page 11 with the following amended paragraph.

UDP port numbers are directly associated with GTP versions and both end points of a path use the same version of GTP. Therefore, only one UDP port entry **234** is required to define **218** a path. However, extended or different path definitions are anticipated. If protocols evolve or are developed that use different port numbers at a local node than are used at a remote node ~~than~~ then the PIP Table can be extended to include local and remote UDP port numbers or GTP versions.

On page 12, for the last paragraph beginning at line 27, please substitute the following amended paragraph:

The Path Disabled Time entry **254** is a second time stamp. The Path Disabled Time entry **254** is only valid for records **214** or path definitions **218** that are associated with an Operational State entry **246** having a value of --Disabled--. The Path Disabled Time **254** indicates the time when it was first determined that a path **218** was disabled. Additionally, or alternatively, in some embodiments, the Path Disabled Time may be associated with and valid for paths having an Administrative State value of --Locked--. The Path Disabled Time entries **254** are used to prevent the PIP Table **210** from growing too large and from containing too many invalid or dead entries. As will be described in greater detail below, when the Path Disabled Time entry **254** indicates that a path entry **214** associated with a dynamic path has indicated that the dynamic path has been disabled or locked for an extended period of time, the dynamic path entry **214** is removed or flushed from the PIP Table **210**. By definition, static paths are not automatically flushed from the PIP Table **210**. Instead, they can be manually removed from the table **210** when the associated resources are reallocated or removed from service.

On page 15, for the first paragraph beginning at line 8, please substitute the following amended paragraph:

As explained above, receiving **318** path status information can also include receiving administrative information. For example, a method **510** for updating administrative state information includes receiving **520** administrative state

information for a path associated with information in a PIP Table and updating **530** the Administrative State entry for the path. As explained in greater detail below, some embodiments include transmitting **540** a new message referred to herein as a Gratuitous GTP Echo Response message which includes the value of the Administrative State entry (e.g., **242**). The Gratuitous GTP Echo Response message is new in the sense that it is transmitted in response to an administrative state change in the transmitting node (from --Unlocked-- to --Locked--) and not in response to a GTP Echo Request message. Additionally, the administrative state within the Gratuitous GTP Echo Response message ~~is can~~ can be inferred by the receiving node from the incrementing of the Restart Counter within the Recovery Information Element within the Gratuitous GTP Echo Response message. Alternatively, a proprietary version of a Gratuitous GTP Echo Response message using a private extension information element can be used to carry an explicit administrative state field.

On page 17, for the second paragraph beginning at line 11, please substitute the following amended paragraph:

For example, referring to FIG. 6, a method **610** for further maintaining a Path Integrity Protocol Table (e.g., **210**) includes waiting **614** for a ~~poll~~ poll timer to expire. When the ~~poll~~ poll timer expires **614**, a determination **618** is made as to whether or not a first dynamic path record is older than a desired age, record age threshold or refresh time. For example, the Time Stamp entry **250** for the record is examined or compared with a current time. If the difference between the current time and the value of the Time Stamp entry **250** is greater than a path status information age threshold or refresh time, a GTP Echo Request message is transmitted **622** over the dynamic path associated with the record. If **624** a response is received (i.e., GTP Echo Response), the operational state entry for the path record is updated **626** to a value of --Enabled--, a determination **627** is made as to whether or not all records have been examined and if not, a next record is selected **628** for examination. If **627**, all the records (e.g., **214**) in the PIP Table have been examined, the poll timer is reset **629**.

For the last paragraph beginning at line 28 of page 18, please substitute the following amended paragraph:

A network node operative to implement the Path Integrity Protocol includes main network node functional blocks for carrying out the main purpose or function of the network node. Additionally, a network node operative to carry out the Path Integrity Protocol includes a GTP Echo Request/Response Processor and a Path Integrity Protocol module or functional equivalents thereof. Each of the main network node functional blocks, the GTP Echo Request/Response Processor and the Path Integrity Protocol Module can be implemented in software, hardware or a combination of software and hardware. The use of the term --processor--is not meant to suggest a hardware implementation. The GTP Echo Request/Response Processor, as well as the other functional blocks, can be implemented as a process, processes or one or more sets of sub-processes distributed over a plurality of hardware or software modules.